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## AN EXPERIMENT WITH THE FRUIT OF RED BANEERRY.

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SOME years ago several plants of the red baneberry (*Actaea spicata*, var. *rubra*, Ait.) were transplanted to a sheltered spot in Bradford, Vermont, along the base of a veranda facing the east, and shaded by maples. The situation proving favorable, the plants each year have been very ornamental, being of unusual size and producing very large clusters of fruit. The graceful, lace-like leaves and the vivid crimson of the berries attract a great deal of attention, and the questions are often asked: "Where did you get such beautiful plants?" "What can they be?" and "Are n't those berries good to eat?"

An examination of several works on *Materia Medica* failed to show anything as to the properties of the red-berried species, although those of the white-berried were carefully noted. In the fear that children, attracted by the beauty of the fruit, might eat to their own undoing, an experiment in the qualities of the berries was entered upon with the following result.

A small dose was taken after the mid-day meal, as caution seemed advisable; but the only effect noted was a slight burning in the stomach. The question, however, of children eating the forbidden fruit was definitely settled at once, as no child, youth, sane adult, not even a hungry school-boy would ever devour it from deliberate choice; the taste is most nauseous, bitter, puckery; indeed, several even more drastic adjectives might be applied with perfect truth.

Having survived the first attempt, the experimenter hopefully tried again two days later, allowing time for the first dose to be completely



eliminated from the system. On this occasion double the first quantity was taken, and in less than half an hour there was a decided quickening of the pulse and a return of the burning in the stomach, this time more severe than before. These symptoms were transient, lasting perhaps fifteen minutes.

Two days later twice the former amount was taken. Half an hour afterward all curiosity on the subject of red baneberry was abundantly satisfied, for this one experimenter at least. At first there was a most extraordinary pyrotechnic display of blue objects of all sizes and tints, circular with irregular edges; as one became interested in the spots a heavy weight was lowered on the top of the head and remained there, while sharp pains shot through the temples.

Then suddenly the mind became confused and there was a total disability to recollect anything distinctly or arrange ideas with any coherency. On an attempt to talk, wrong names were given to objects, and although at the same time the mind knew mistakes were made in speech, the words seemed to utter themselves independently.

For a few minutes there was great dizziness, the body seeming to swing off into space, while the blue spots changed to dancing sparks of fire. The lips and throat became parched and the latter somewhat constricted; swallowing was rather difficult; there was intense burning in the stomach with gaseous eructations, followed by sharp colicky pains in the abdomen and also pain across the back over the kidneys. The pulse rose to 125, was irregular, wiry, tense; the heart fluttered most unpleasantly.

These symptoms lasted about an hour and were followed by a feeling of great weariness, but in three hours from the time of taking the dose all seemed to be again normal. The experiment was carried no further, as the effects in heart and brain were danger signals not to be ignored.

The conclusion reached is, that while the very unpleasant taste will prevent it from being dangerous in general, the fruit of the red baneberry evidently contains a poison having a powerful effect on circulation and brain; a dozen berries would probably be enough for a fatal dose, half that amount sufficing for the above experience.

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[The above account of Miss Bacon's rather heroic experiments is of special interest, since it proves conclusively a fact which has hitherto been gravely questioned; for serious doubts have been expressed regarding the poisonous properties of *Actaea*. Thus, in a very detailed discussion of the genus by Messrs. J. U. & C. G. Lloyd (Drugs and Medicines of North America, 232-243), we find the following note: "The English plant, *Actaea spicata*, has acquired a reputation as a poisonous plant that it seems to us must be in most part unmerited. By old writers the plant was said to grow in dark recesses and to emit a fetid smell, which attracted toads, hence it is called toad plant. The berries were supposed to be poisonous, and the entire plant to poison cattle. Our native plants, which could hardly be distinguished from the foreign, seem to be entirely innocent of poisonous properties, and certainly do not emit any disagreeable odor."— Ed.]

## LIST OF DESMIDS FOUND IN CARVER'S POND, BRIDGEWATER, MASSACHUSETTS.

JOSEPH A. CUSHMAN.

THE making of this list has taken some of the spare time of three summers, but the time thus spent has been well repaid. Interest was awakened by the discovery of one or two species which were given as southern in Wolle's Desmids of the United States. By persistent search many species were found, which, according to the latest edition of that work, have not hitherto been reported from this section of the country.

The pond in which these were collected is admirably situated for such plants and abounds in other forms of Algae as well as in Desmids. It is a shallow pond, but few portions being over six feet deep and the larger part of its area averaging less than half this depth during the summer months. In spite of its shallowness it is not stagnant as it is fed by two brooks and has an outlet at the opposite end. It covers about forty-two acres and is large enough and the conditions of its borders sufficiently varied to give a considerable difference in species in different parts. A record was kept in order to determine the frequency of occurrence of various species. The list is here given with the author of the species as given in the last edition of Wolle's Desmids of the United States.

*Hyalotheca dissiliens* (Smith) Breb. Seems to occur most frequently in the middle of Spring, being much less frequent later in the season. Common. Found nearly choking a small pool by the side of one of the brooks which feed the pond.